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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,419	03/10/2004	Rolf Ruckdeschel	TRW(AS)7031	4126
26294	7590	10/19/2006	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 1300 EAST NINTH STREET, SUITE 1700 CLEVEVLAND, OH 44114			WEBB, TIFFANY LOUISE	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/797,419	<b>Applicant(s)</b> RUCKDESCHEL ET AL.	
	<b>Examiner</b> Tiffany L. Webb	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Drawings***

1. The drawings were received on 8/2/2006. These drawings are acceptable upon submittal of formal drawings.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claims 1-3, 7, and 11-12 use the phrase "cord-type gas generator." "Cord-type" is an indefinite phrase and is unclear to the scope. In the applicant's arguments, they say it is used to "highlight the long, narrow structure of the first gas generator." This explanation does not serve to embody a "cord" structure. The examiner suggests changing to "an elongated gas generator" or other phrasing to better define the scope of the claim.

***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1-2, 4-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Paxton et al. (US 4,998,751). Regarding claims 1, 7-9, and 11, Paxton et al. discloses having an inflation device comprising a first pyrotechnic gas generator (30)

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having a "cord-type" fuel line (46), as broadly interpreted from "cord-type," the broadest reasonable interpretation includes, a fuse, which combusts and as such can be considered fuel, and an igniter (36) associated with the fuel line, and a second pyrotechnic gas generator (78) having a housing (12) and fuel elements (96 and 120) arranged in the housing, wherein the cord-type fuel line passes through and extends beyond (see Figure 5) the housing of the second pyrotechnic gas generator and wherein the cord-type fuel line within said housing is adapted to release combustion products for igniting the fuel elements of the second gas generator (see Figure 2). Regarding claim 2, Paxton et al. discloses having the first pyrotechnic gas generator having a housing (30a) with overflow openings (74), and wherein the housing of the first pyrotechnic gas generator with the overflow openings (74) passes through the housing of the second pyrotechnic gas generator. Regarding claim 3, Paxton et al. discloses having a housing (30a) adjoining the housing (12) of the second pyrotechnic gas generator, and wherein the fuel line passing through the housing of the second gas generator being directly in contact with the fuel elements (see Figure 2). Regarding claim 4, Paxton et al. discloses having fuel elements (96) that are fuel tablets which are arranged in the second housing. Regarding claim 5, Paxton et al. discloses having hollow cylindrical shaped fuel elements (120), also known as wafers, surrounding the fuel line and within the housing of the second pyrotechnic gas generator (see Figure 2). Regarding claim 6, Paxton et al. discloses the fuel elements having a higher combustion rate than the fuel line (see col. 9, lines 1-31).

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-2, 4-9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paxton et al. in view of Herrmann (WO 01/08937). Paxton et al. discloses having an inflation device comprising a first pyrotechnic gas generator (30) having an igniter (36) associated with the fuel line, and a second pyrotechnic gas generator (78) having a housing (12) and fuel elements (96 and 120) arranged in the housing, wherein the cord-type fuel line passes through the housing of the second pyrotechnic gas generator and wherein the cord-type fuel line within said housing is adapted to release combustion products for igniting the fuel elements of the second gas generator (see Figure 2). Using a narrower interpretation of "cord-type fuel line," if this limitation is considered to preclude a simple fuse, Paxton et al. fails to disclose having a cord-type fuel line used in the gas generator. Regarding claims 1, 7-9, and 11, Herrmann, however, discloses using a cord-type gas generator comprising a solid propellant strand in inflators. It would have been obvious to one of ordinary skill in the art at the time of the invention to have put the cord-type generator of Herrmann in the gas generator system of Paxton et al. in view of the teachings to use this generator to help reduce combustion time but increase safety in the gas generator. Regarding claim 2, Paxton et al. discloses having the first pyrotechnic gas generator having a housing (30a) with overflow openings (74), and wherein the housing of the first pyrotechnic gas generator with the overflow openings (74) passes through the housing of the second pyrotechnic gas generator. Regarding claim 4, Paxton et al. discloses having fuel

elements (96) that are fuel tablets which are arranged in the second housing.

Regarding claim 5, Paxton et al. discloses having hollow cylindrical shaped fuel elements (120), also known as wafers, surrounding the fuel line and within the housing of the second pyrotechnic gas generator (see Figure 2). Regarding claim 6, Paxton et al. discloses the fuel elements having a higher combustion rate than the fuel line (see col. 9, lines 1-31).

### ***Response to Arguments***

9. Applicant's arguments filed 8/2/2006 have been fully considered but they are not persuasive. Regarding the application of Paxton et al. ('751), the examiner holds that there is a propellant strand in the form of an igniter with ignition granules and is considered a gas generator, as it does produce gas upon combustion. Further, the igniter tube and fuse cord do extend through the housing (see Figure 5). Regarding the rejection under 35 U.S.C. 103(a) over Paxton et al. in view of Herrmann ('937), the Examiner has changed her motivation and still asserts that the pending application is unpatentable in view of the above art. The applicant argues that Paxton et al. does not have any way for the gas to escape the sleeve, the examiner respectfully disagrees and points the applicant to Figure 5 of Paxton et al.

10. Applicant's arguments, see page 11, line 7- page 13, line 2, filed 8/2/2006, with respect to claims 1-6 have been fully considered and are persuasive. The rejection of claims 1-6 in view of Nakajima et al. has been withdrawn.

11. Applicant's arguments, see page 10, filed 8/2/2006, with respect to claims 1-6 have been fully considered and are persuasive. The objection of "fuel line" and "in a fill" have been withdrawn.

***Allowable Subject Matter***

5. Claim 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

6. Claims 3 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

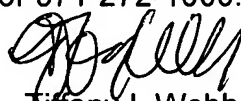
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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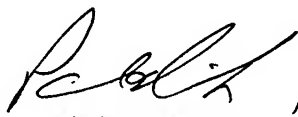
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany L. Webb whose telephone number is 571-272-2797. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Tiffany L Webb  
Examiner  
Art Unit 3616

tlw

 10/14/06  
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